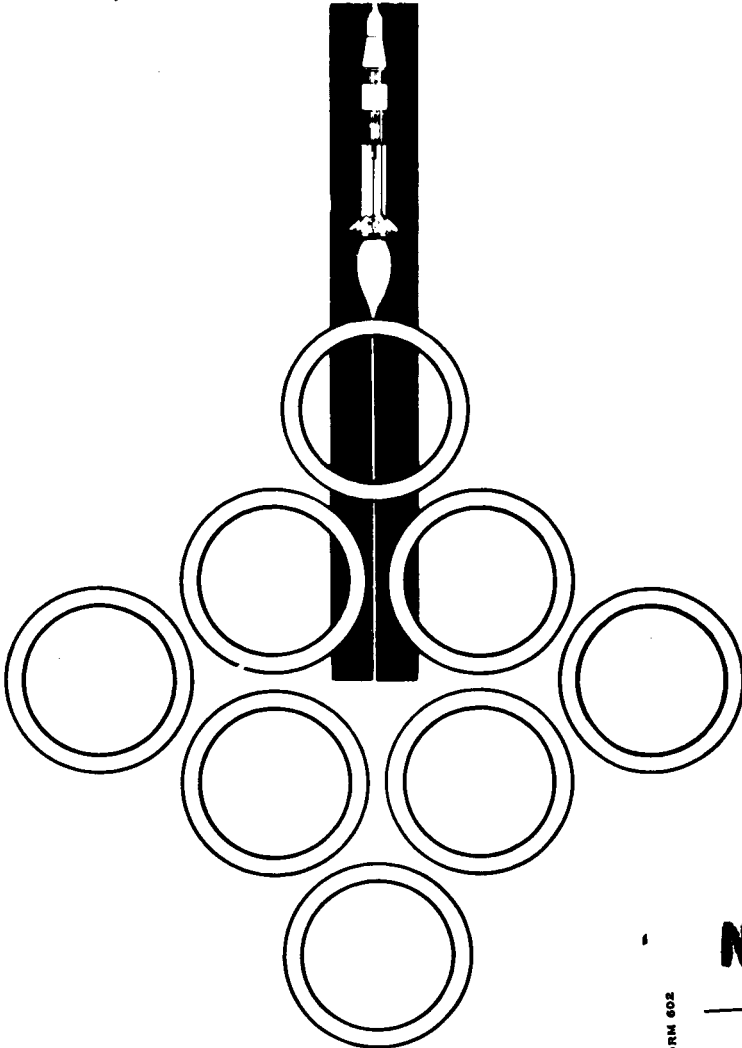


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**ENGINEERING DEPARTMENT  
TECHNICAL REPORT**

TR-RE-CCSD-F0-1089-3

February 2, 1967

**SATURN IB PROGRAM**

FACILITY FORM 602	<b>N67-26011</b>	
	_____ (ACCESSION NUMBER)	_____ (THRU)
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	<u>CR-83987</u> (NASA CR OR TMX OR AD NUMBER)	<u>14</u> (CATEGORY)

**TEST REPORT  
FOR**

PRESSURE GAUGE, 6-INCH, 0- TO 6000-PSIG

U. S. Gauge Company Part Number 1838

NASA Drawing Number 75M09618 PFG-5

SPACE DIVISION



**CHRYSLER  
CORPORATION**

TEST REPORT

FOR

PRESSURE GAUGE, 6-INCH, 0- TO 6000-PSIG

U. S. Gauge Company Part Number 1833

NASA Drawing Number 75M09618 PPG-5

ABSTRACT

This report presents the results of tests performed on one specimen of Pressure Gauge 75M09618 PPG-5. The following tests were performed:

- |                         |          |
|-------------------------|----------|
| 1. Receiving Inspection | 4. Cycle |
| 2. Functional           | 5. Burst |
| 3. Surge                |          |

The specimen performance was in accordance with the specification requirements of NASA Specification 75M09618 PPG-5 throughout the receiving inspection, initial functional, and surge tests.

Following 10,000 cycles of the cycle test, the test specimen indications were in error by 4.1 per cent.

TEST REPORT

FOR

PRESSURE GAUGE, 6-INCH, 0- TO 6000-PSIG

U. S. Gauge Company Part Number 1838

NASA Drawing Number 75M09618 PPG-5

February 2, 1967

CHRYSLER CORPORATION SPACE DIVISION - NEW ORLEANS, LOUISIANA

3198-2-27-67

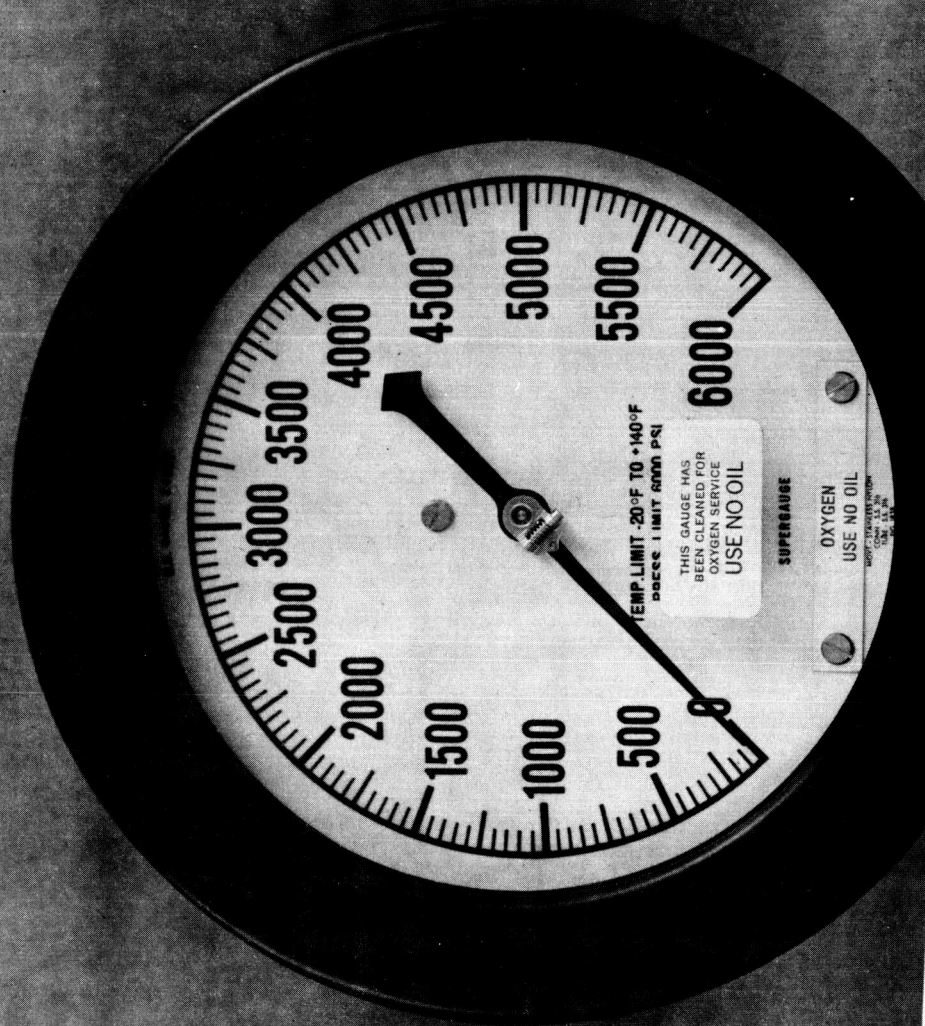
## FOREWORD

The tests reported herein were conducted for the John F. Kennedy Space Center by Chrysler Corporation Space Division (CCSD), New Orleans, Louisiana. This document was prepared by CCSD under contract NAS 8-4016, Part VII, CWO 271620.



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75M09618 PPG-5

Pressure Gauge, 6-Inch, 0- To 6000-psig

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## CHECK SHEET

FOR

0- TO 6000-PSIG PRESSURE GAUGE

MANUFACTURER: U. S. Gauge Company  
MANUFACTURER'S PART NUMBER: 1838  
NASA DRAWING NUMBER: 75M09618 PPG-5  
TEST AGENCY: Chrysler Corporation Space Division, New Orleans, La.  
AUTHORIZING AGENCY: NASA KSC

### I. FUNCTIONAL REQUIREMENTS

A. OPERATING MEDIUM:	He or GN <sub>2</sub>
B. OPERATING RANGE:	0 to 6000 psig
C. ACCURACY:	1 per cent of full scale for middle (working) half of scale and 1.5 per cent of full scale for the remainder

### II. CONSTRUCTION

A. MATERIAL:	Case - aluminum Bourdon Tube - 316 Stainless Steel Meter Movement - 316 SST and Nylon Dial Cover - nonshatterable glass Socket and Connection - steel Ring - steel Dial - steel
B. GAUGE SIZE:	6 inches
C. CONNECTION:	1/4-inches
D. GAUGE MOUNTING:	Front flange mounting

### III. ENVIRONMENTAL CHARACTERISTICS

A. TEMPERATURE RANGE:	-20°F to +140°F
-----------------------	-----------------

### IV. LOCATION AND USE:

The gauge is used at Launch Complex 34  
in the 3500-psi GN<sub>2</sub> system.

# TEST SUMMARY

PRESSURE GAUGE, 6-INCH 0- TO 6000-PSIG

75M09618 PPG-5

Environment	Units	Operational Boundary	Test Objective	Test Results	Remarks
Receiving Inspection	1	Comply with NASA drawing 75M09618 PPG-5	Determine compliance with NASA and vendor drawings and examine for poor workmanship	Satisfactory	---
Functional Test	1	1% of full scale indication for middle half of scale; 1.5% for remainder of scale.	Check specimen against laboratory gauge for accuracy.	Satisfactory	---
Surge Test	1	0 to 3500 within 100 milliseconds 20 cycles.	Determine if cyclic pressure surges will cause degradation or deformation.	Satisfactory	---
Cycle Test	1	0 to 6000 to 0 in 6 to 10 seconds. 10,000 cycles.	Determine if cycling will cause degradation or deformation	Unsatisfactory	After 10,000 cycles, test specimen indications were in error as much as 4.1%
Burst Test	1	10,000 psig for 5 minutes	Determine if abnormally high pressure will cause leakage or structural damage.	Satisfactory	No leakage occurred, however the test specimen indicated 3,000 psi at zero pressure at termination of test.

SECTION I  
INTRODUCTION

1.1      SCOPE

This report presents the results of tests that were performed to determine if pressure gauge 75M09618 PPG-5 meets the operational requirements for John F. Kennedy Space Center Launch Complex 34. A summary of the test results is presented on page viii.

1.2      ITEM DESCRIPTION

1.2.1      One specimen of pressure gauge 75M09618 PPG-5 was tested. The gauge is used to indicate  $\text{GN}_2$  pressure to the propellant control consoles.

1.2.2      Pressure gauge 75M09618 PPG-5 is manufactured by U. S. Gauge Company as vendor part number 1838. The pressure gauge size is 6 inches, and the scale range is zero to 6000 psig. The gauge is designed to indicate pressure with an accuracy of 1.0 per cent of full scale range for the middle half of the scale and 1.5 per cent of full scale range for the remainder of the scale.

1.3      APPLICABLE DOCUMENTS

The following documents contain the test requirements for pressure gauge 75M09618 PPG-5:

- a.      75M09618 PPG-5, Component Specification
- b.      KSC-STD-164(D), dated September 17, 1964, Standard Environmental Test Methods for Ground Support Equipment Installations at Cape Kennedy
- c.      Test Plan CCSD-FO-1089-2F
- d.      **Test Procedure TP-RE-CCSD-FO-1089-2**

SECTION II  
RECEIVING INSPECTION

2.1 TEST REQUIREMENTS

The pressure gauge shall be visually and dimensionally inspected for conformance with NASA drawing 75M09618 PPG-5 and applicable specifications to the extent possible without disassembly of the test specimen. The specimen shall also be inspected for poor workmanship and manufacturing defects.

2.2 TEST PROCEDURE

A visual and dimensional inspection of the test specimen was performed to determine compliance with NASA drawing 75M09618 PPG-5 and applicable vendor drawing to the extent possible without disassembly of the test specimen. At the same time, the test specimen was also inspected for poor workmanship and manufacturing defects.

2.3 TEST RESULTS

The specimen complied with NASA drawing 75M09618 PPG-5. No evidence of poor workmanship or manufacturing defects was observed.

2.4 TEST DATA

The data presented in table 2-1 were recorded during the inspection.

Table 2-1. Specimen Nomenclature and Size

Name	Pressure Gauge
Manufacturer	U. S. Gauge Co.
Model Number	1838
Pressure Range	0- to 6000-psig
Dial Size	6 inches
Mounting Flange Diameter	7-3/4 inches
Fitting Size	1/4-inch male NPT

SECTION III  
FUNCTIONAL TEST

3.1 TEST REQUIREMENTS

- 3.1.1 The test specimen shall be subjected to an initial functional test consisting of 10 cycles from zero to 6000 psig, using He or GN<sub>2</sub> as the test medium.
- 3.1.2 The test specimen shall be subjected to five cycles from zero to 6000 psig in all subsequent functional tests.
- 3.1.3 Pressure readings shall be taken in 500-psig increments and monitored. The accuracy of the readings shall be verified with a laboratory gauge.

3.2 TEST PROCEDURE

- The functional test setup was assembled as shown in figures 3-1 and 3-2, using the equipment listed in table 3-1. It was determined that all connections were tight, all gauges were installed and were operating properly, and all valves were closed.
- 3.2.2 Hand valves 4 and 7 were opened and pressure regulator 6 adjusted until a flow was established to purge the system of air.
  - 3.2.3 Pressure regulator 6 was adjusted until zero psig was indicated on laboratory gauge 2. The pressure indication of specimen 1 was recorded. Vent valve 7 was closed.
  - 3.2.4 Using regulator 6, the pressure was increased to 500 psig as indicated on test specimen 1. The pressure indication on laboratory gauge 2 was recorded.
  - 3.2.5 The procedure described in 3.2.4 was repeated, taking pressure readings on test specimen 1 in 500-psig increments until a pressure of 6000 psig was reached.
  - 3.2.6 Using pressure regulator 6 and vent valve 7, the pressure was decreased and the pressure indicated on laboratory gauge 2 was recorded.
  - 3.2.7 The procedure described in 3.2.6 was repeated, taking pressure readings on test specimen 1 in 500-psig decrements until zero psig was reached.
  - 3.2.8 The procedures described in 3.2.4 through 3.2.7 were repeated for ten cycles during the initial functional test and five cycles during subsequent functional tests.



3.3

TEST RESULTS

The test specimen demonstrated satisfactory accuracy, operation and resolution during the initial functional test. The test specimen indication was exact at zero, and a maximum of 1 per cent of full scale deviation was evident from 500 psi through 6000 psi.

3.4

TEST DATA

The data presented in table 3-2 were recorded during the test.

Table 3-1. Functional Test Equipment List

Item No.	Item	Manufacturer	Model/ Part No.	Serial No.	Remarks
1	Test Specimen	U. S. Gauge Co.	1838	75M09618 -PPG-5	0- to 6000-psig 1.5% FS accuracy
2	Laboratory Gauge	Heise	#34955	08-113- 014230	0- to 10,000 psig 0.1% FS accuracy Cal. date 10/10/66
3	GN <sub>2</sub> Supply	NA	NA	NA	6000-psig
4	Hand Valve	<b>Tescom</b>	NA	NA	1/4-inch
5	Filter	Fluid Dynamics	FX1561	NA	2-micron absolute
6	Pressure Regulator	<b>Tescom</b>	26-1024 -24	8360	0- to 6000 psig inlet 0- to 6000-psig outlet
7	Vent Valve	<b>Tescom</b>	NA	NA	

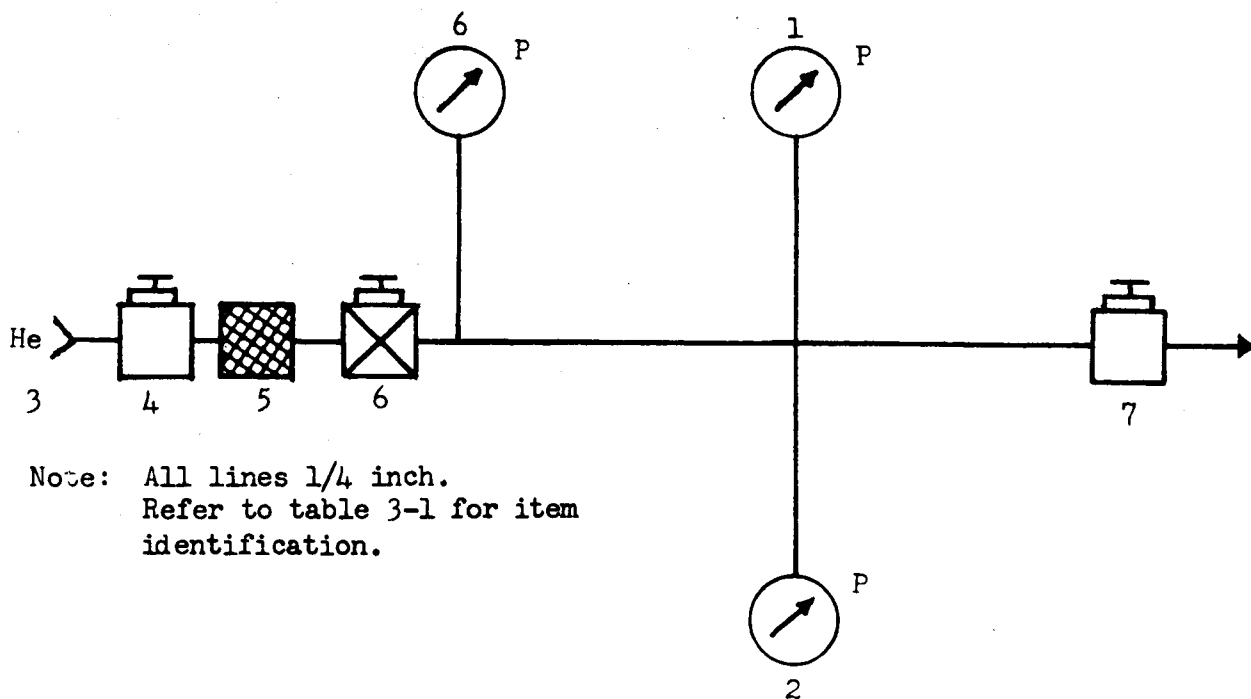


Figure 3-1. Functional Test Schematic

Table 3-2. Initial Functional Test Data

Specimen Indication (psi)	Laboratory Gauge Indications (psi) and Cycle									
	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0
500	530	520	530	515	500	505	510	475	465	460
1000	1015	1010	1030	1030	1015	1010	1015	970	980	970
1500	1530	1515	1535	1530	1520	1515	1525	1480	1480	1470
2000	2035	2030	2035	2035	2020	2025	2020	1985	1980	2020
2500	2535	2520	2530	2525	2530	2515	2515	2490	2495	2485
3000	3055	3045	3050	3055	3045	3035	3040	3000	3000	3000
3500	3555	3530	3550	2550	3540	3535	3535	3500	3500	3500
4000	4000	4050	4035	4035	4050	4055	4045	4015	4020	4020
4500	4500	4540	4565	4560	4550	4550	4550	4525	4525	4525
5000	5055	5030	5055	5060	5050	5040	5050	5010	5010	5020
5500	5535	5520	5545	5540	5525	5520	5525	5505	5505	5500
6000	6035	6020	6040	6040	6025	6035	6035	5990	5990	5995
5500	5530	5530	5530	5535	5515	5515	5480	5475	5475	5495
5000	5040	5020	5040	5035	5025	5030	5015	4595	5000	5000
4500	4550	4530	4545	4550	4545	4530	4530	4500	4485	4500
4000	4035	4020	4040	4040	4030	4030	4030	3995	3990	4000
3500	3525	3510	3520	3525	3500	3510	3510	3470	3480	3470
3000	3035	3015	3035	3030	3010	3015	3015	2970	2970	2970
2500	2510	2500	2510	2510	2500	2500	2500	2460	2460	2465
2000	2010	2000	2000	2014	2000	2000	2000	1960	1955	1960
1500	1500	1500	1510	1515	1500	1500	1500	1455	1450	1455
1000	1000	995	1020	1015	1000	1000	1000	960	960	950
500	500	490	510	510	500	495	490	450	450	450
0	0	0	0	0	0	0	0	0	0	0

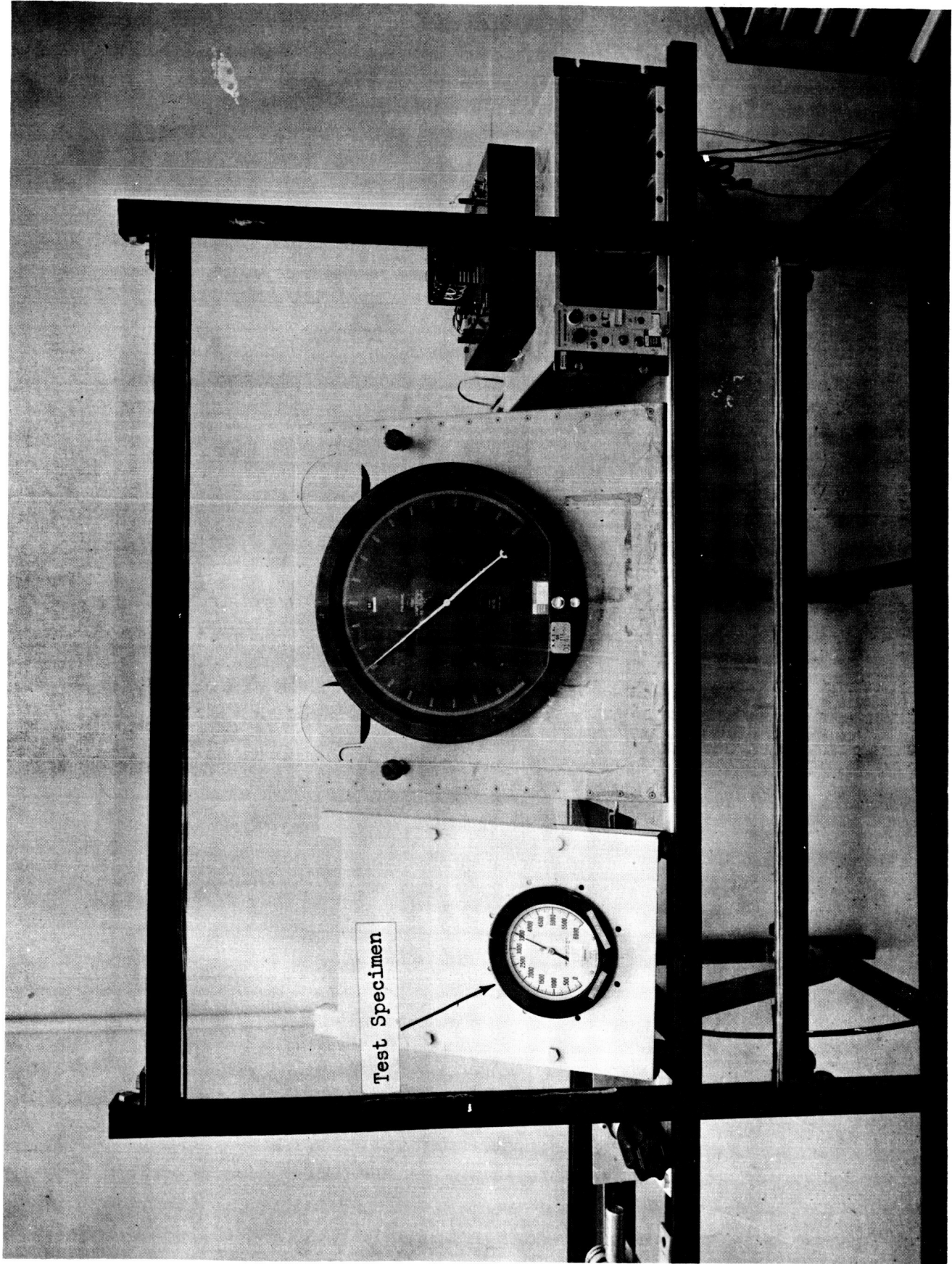


Figure 3-2. Functional Test Setup

4.4

TEST DATA

4.4.1

The data presented in table 4-2 were recorded after the test. Figure 4-3 presents a typical surge pressure cycle.

## SECTION IV

### SURGE TEST

#### 4.1 TEST REQUIREMENTS

- 4.1.1 A surge test shall be performed on the test specimen to determine whether cyclic pressure surges cause degradation or deformation.
- 4.1.2 The surge test shall consist of pressurizing the test specimen from zero to 3500 psig in 100 milliseconds, using He or GN<sub>2</sub>.
- 4.1.3 Twenty cycles shall be performed.

#### 4.2 TEST PROCEDURE

- 4.2.1 The surge test setup was assembled, as shown in figures 4-1 and 4-2, using the equipment listed in table 4-1. It was ensured that all connections were tight, gauges were installed and were operating properly, and all valves were closed.
- 4.2.2 Vent valve 14 was opened; then hand valve 12 was opened.
- 4.2.3 Pressure regulator 8 was adjusted until 3500 psig was indicated on pressure gauge 6.
- 4.2.4 Solenoid valve 7 was actuated, hand valve 4 was opened and flow regulator 5 adjusted until a flow was established to purge the system of air. Vent valve 14 was closed when the system was purged.
- 4.2.5 Solenoid valve 7 was cycled and flow regulator 5 adjusted until a pressure rise from zero to 3500 psig within 100 milliseconds was established.
- 4.2.6 After the surge cycle had been established, test specimen 1 was subjected to 20 cycles as indicated by counter 10. The cycles were monitored on oscillograph recorder 2.
- 4.2.7 A functional test was performed on test specimen 1 after 20 cycles were completed.

#### 4.3 TEST RESULTS

- 4.3.1 The test specimen did not leak. There was no deformation or degradation of performance.

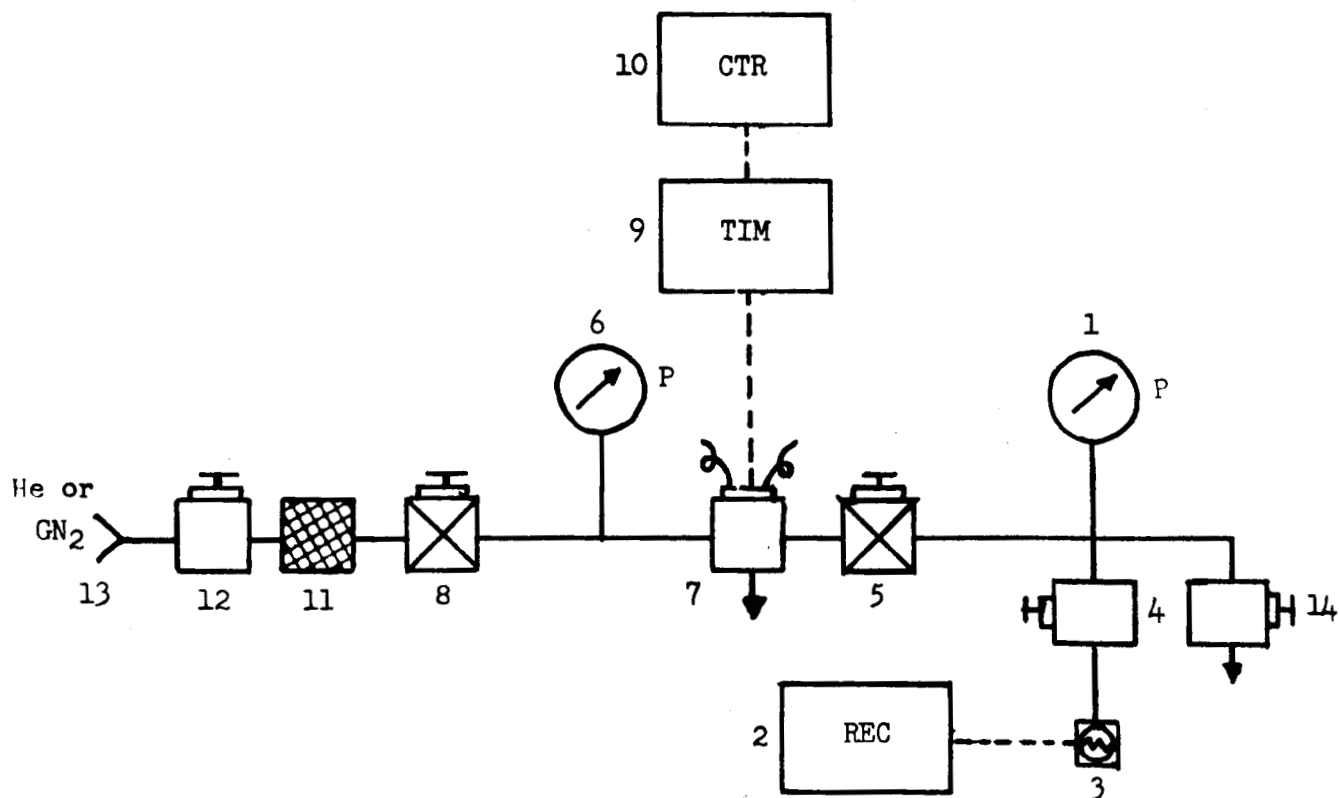
Table 4-1. Surge Test and Cycle Test Equipment List

Item No.	Item	Manufacturer	Model/ Part No.	Serial No.	Remarks
1	Test Specimen	U. S. Gauge Co.	1838	NA	0- to 6000-psig 1.5% FS accuracy
2	Oscillograph Recorder	Consolidated Electrodynamics	NA	017-887	
3	Pressure Transducer	Teledyne	176	652137	0- to 10,000 psig $\pm 1/4\%$ FS accuracy Cal. date 9/6/66
4	Hand Valve	Robbins	SSKA-250 -4T	NA	1/4-inch
5	Flow Regulator	<b>Tescom</b>	NA	NA	1/4-inch
6	Pressure Gauge	Heise	NA	08-113-014230	0- to 10,000 psig 0.5% FS accuracy Cal. date 10/30/66
7	Solenoid Valve	Marotta	MV-74	17216	3-way
8	Pressure Regulator	Grove	NA	104924	6000-psig inlet 3500-psig outlet
9	Cycle Timer	Cramer Controls	523	Y2389A	
10	Counter	General Control	NA	NA	
11	Filter	Fluid Dynamics	FX1561	NA	2-micron absolute
12	Hand Valve	Grove	NA	NA	1- $\frac{1}{2}$ -inch
13	He or GN <sub>2</sub> Supply	NA	NA	NA	6000-psig
14	Vent Valve	Robbins	SSKA-250 -4T	NA	1/4-inch

Table 4-2. Functional Test Data After Surge Test

Specimen Indication (psi)	Laboratory Gauge Indications (psi) And Cycle				
	1	2	3	4	5
0	0	0	0	0	0
500	480	475	480	475	475
1000	930	985	970	940	990
1500	1480	1480	1475	1480	1480
2000	1980	1985	1985	1985	1990
2500	2480	2490	2490	2490	2490
3000	2995	3000	3000	3000	3000
3500	3505	3500	3500	3500	3510
4000	4010	4015	4020	4015	4020
4500	4525	4505	4525	4525	4525
5000	5010	5025	5010	5010	5020
5500	5500	5500	5505	5500	5510
6000	5980	5990	5985	5990	5995
5500	5485	5495	5485	5500	5505
5000	5000	5010	5000	5000	5010
4500	4500	4505	4505	4510	4510
4000	4000	4000	4000	4000	4000
3500	3475	3480	3470	3485	3480
3000	2970	2975	2975	2980	2975
2500	2500	2460	2465	2460	2460
2000	1960	1960	1960	1960	1960
1500	1460	1460	1470	1465	1460
1000	960	955	970	960	970
500	460	460	460	465	460
0	0	0	0	0	0





Note: All lines 1/4 inch.  
 Refer to table 4-1 for item identification.  
 Electrical connection shown by broken line (---).

Figure 4-1. Surge Test and Cycle Test Schematic

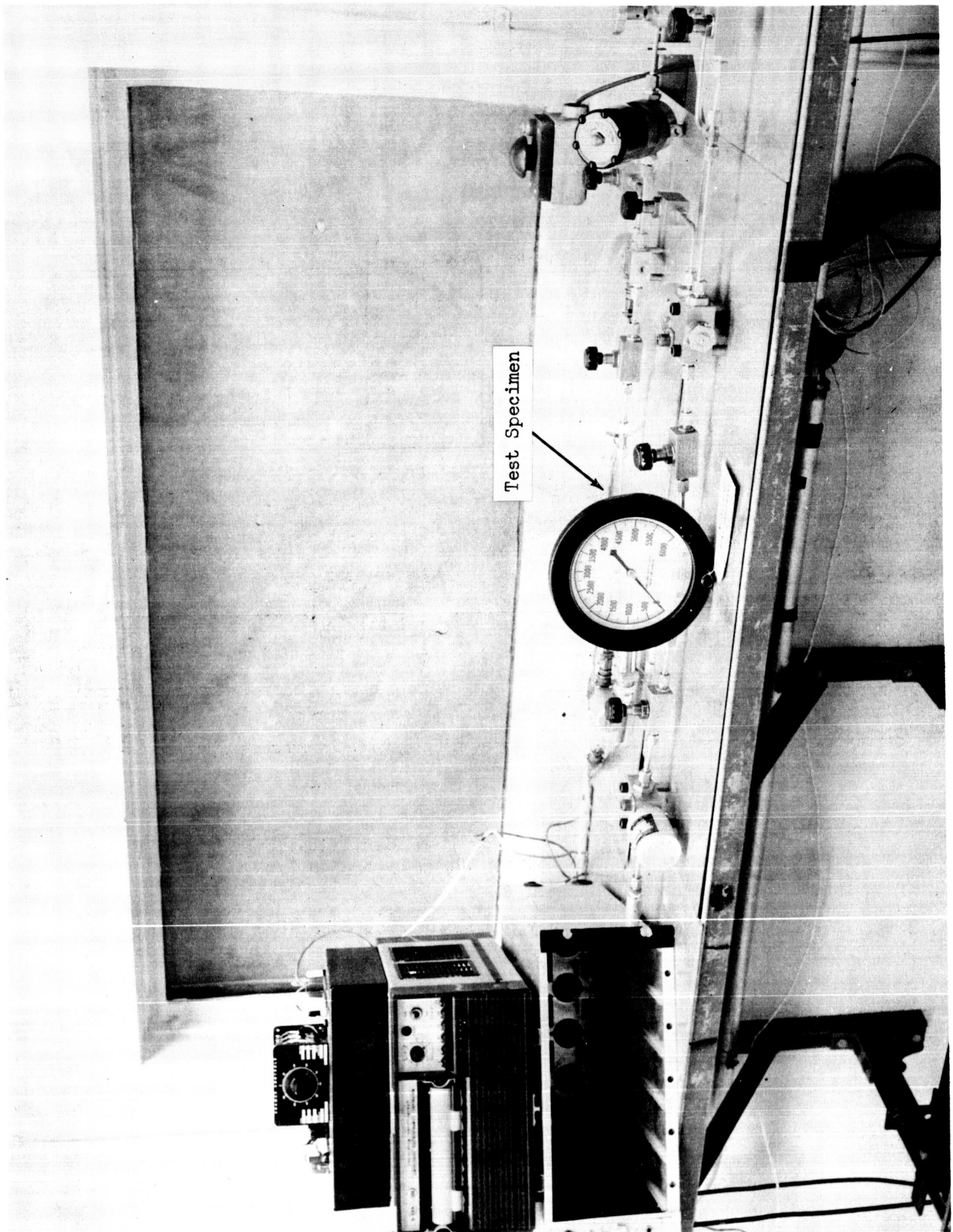


Figure 4-2. Surge Test And Cycle Test Setup

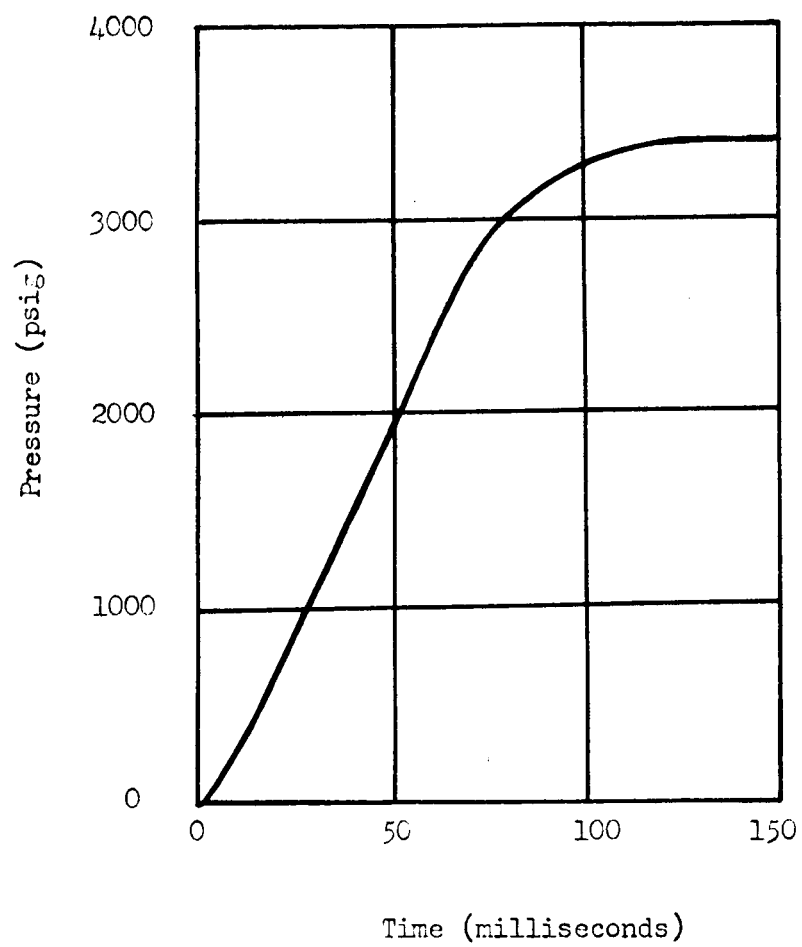


Figure 4-3. Typical Pressure Surge

## SECTION V

### CYCLE TEST

#### 5.1 TEST REQUIREMENTS

- 5.1.1 A cycle test shall be performed on the test specimen to determine whether continued cycling causes degradation or deformation.
- 5.1.2 One cycle shall consist of pressurizing the test specimen from zero to 6000 psig and back to zero in 6 to 10 seconds.
- 5.1.3 Conduct 10,000 cycles and perform functional test after 500, 1000, 5000, and every 5000 cycles thereafter.

#### 5.2 TEST PROCEDURE

- 5.2.1 The cycle test setup was assembled as shown in figures 4-1 and 4-2, using the equipment listed in table 4-1. It was determined that all connections were tight, gauges were installed and were operating properly, and all valves were closed.
- 5.2.2 Vent valve 14 was opened, then hand valve 12 was opened.
- 5.2.3 Pressure regulator 8 was adjusted until 6000 psig was indicated on pressure gauge 6.
- 5.2.4 Solenoid valve 7 was actuated, hand valve 4 was opened, and flow regulator 5 was adjusted until a flow was established to purge the system of air. Vent valve 14 was closed when the system was purged.
- 5.2.5 Solenoid valve 7 was cycled and flow regulator 5 was adjusted until a pressure cycle from zero to 6000 psig and back to zero was established within 10 seconds.
- 5.2.6 After the cycle had been established, test specimen 1 was subjected to 10,000 cycles as indicated by counter 10. The pressure rise and decay time was periodically checked on oscillograph recorder 2.
- 5.2.7 A functional test was performed on test specimen 1 after 500, 1000, 5000 and 10,000 cycles.

5.3

TEST RESULTS

5.3.1

At the beginning of the cycle test, the test specimen indications were within 1.5 per cent of full scale. On completion of 10,000 cycles, the test specimen indications were in error by as much as 4.1 per cent. Specimen indications were 625 at 500 psig, and 5780 at 6000 psig. The shift in specimen indications was attributed to bourdon tube fatigue. Adjustments of the test specimen failed to correct the out-of-tolerance condition.

5.4

TEST DATA

5.4.1

The data recorded during the test is presented in tables 5-1 through 5-4. A typical pressure cycle is presented in figure 5-2.

Table 5-1. Functional Test Data After 500 Cycles

Specimen Indication (psi)	Laboratory Gauge Indication (psi) And Cycle				
	1	2	3	4	5
0	0	0	0	0	0
500	460	475	490	490	490
1000	980	975	990	995	995
1500	1485	1475	1510	1490	1495
2000	1980	2000	2000	1995	2000
2500	2485	2485	2495	2500	2500
3000	3000	3000	3010	3000	3000
3500	3495	3500	3515	3510	3510
4000	4010	4015	4015	4030	4035
4500	4515	4510	4515	4525	4520
5000	4990	5000	5020	5015	5010
5500	5500	5485	5500	5500	5490
6000	5975	5985	6000	6005	6005
5500	5480	5480	5490	5495	5500
5000	4985	4990	5000	5010	5005
4500	4495	4495	4510	4500	4505
4000	3980	3990	4000	4000	4005
3500	3480	3485	3490	3500	3495
3000	2970	2980	2995	2990	2995
2500	2460	2470	2475	2480	2480
2000	1965	1970	1975	1980	1980
1500	1465	1475	1480	1485	1480
1000	465	990	975	980	980
500	455	480	480	480	490
0	0	0	0	0	0

Table 5-2. Functional Test Data After 1000 Cycles

Specimen Indication (psi)	Laboratory Gauge Indication (psi) And Cycle				
	1	2	3	4	5
0	0	0	0	0	0
500	470	480	485	480	480
1000	985	985	985	980	985
1500	1490	1480	1480	1490	1490
2000	1985	1980	1980	1980	1990
2500	2485	2580	2485	2480	2490
3000	2995	2995	2995	3000	3000
3500	3500	3490	3495	3500	3500
4000	4010	4010	4010	4010	4010
4500	4515	4500	4500	4500	4500
5000	5000	4995	4990	4990	4990
5500	5480	5480	5480	5485	5480
6000	5990	5985	5980	5980	5980
5500	5470	5470	5490	5480	5475
5000	4980	4980	4980	4985	4975
4500	4490	4495	4485	4490	4480
4000	3990	3990	3990	3990	3990
3500	3470	3470	3475	3470	3475
3000	2970	2970	2970	2975	2975
2500	2455	2460	2465	2465	2465
2000	1965	1970	1965	1965	1970
1500	1470	1470	1475	1475	1470
1000	975	970	975	970	975
500	475	480	475	475	480
0	0	0	0	0	0

Table 5-3. Functional Test Data After 5000 Cycles

Specimen Indication (psi)	Laboratory Gauge Indication (psi) And Cycle				
	1	2	3	4	5
0	0	0	0	0	0
500	530	525	520	525	515
1000	1025	1020	1020	1020	1015
1500	1525	1520	1510	1515	1510
2000	2020	2010	2000	2010	2010
2500	2510	2505	2500	2500	2500
3000	3010	3010	3000	3000	3000
3500	3500	3500	3500	3500	3500
4000	4000	4000	4000	4000	4000
4500	4485	4485	4485	4480	4480
5000	4955	4965	4955	4960	4960
5500	5445	5445	5440	5430	5440
6000	5930	5940	5930	5930	5930
5500	5440	5440	5430	5430	5430
5000	4945	4950	4950	4940	4945
4500	4470	4460	4450	4460	4455
4000	3975	3915	3970	3975	3975
3500	3480	3475	3470	3475	3470
3000	2980	2985	2980	2980	2975
2500	2480	2480	2475	2470	2475
2000	1990	1980	1980	1975	1980
1500	1500	1510	1500	1500	1500
1000	1005	1005	1000	990	990
500	520	520	500	510	510
0	0	0	0	0	0



Table 5-4. Functional Test Data After 10,000 Cycles

Specimen Indication (psi)	Laboratory Gauge Indication (psi) And Cycle				
	1	2	3	4	5
0	0	0	0	0	0
500	625	605	625	630	620
1000	1110	1090	1115	1120	1115
1500	1585	1555	1600	1600	1590
2000	2050	2025	2065	2060	2050
2500	2530	2520	2550	2545	2540
3000	3010	3000	3020	3020	3015
3500	3500	3480	3500	3515	3500
4000	3960	3840	3965	3970	3965
4500	4420	4400	4425	4435	4430
5000	4880	4870	4880	4875	4885
5500	5350	5325	5365	5360	5360
6000	5800	5780	5805	5810	5805
5500	5330	5310	5345	5345	5330
5000	4860	4835	4855	4850	4865
4500	4390	4360	4390	4395	4400
4000	3925	3900	3920	3920	3925
3500	3460	3435	3465	3465	3455
3000	2975	2940	2975	2975	2975
2500	2495	2475	2500	2500	2500
2000	2025	2000	2020	2020	2020
1500	1555	1525	1550	1550	1555
1000	1085	1055	1070	1080	1085
500	615	575	600	610	610
0	0	0	0	0	0

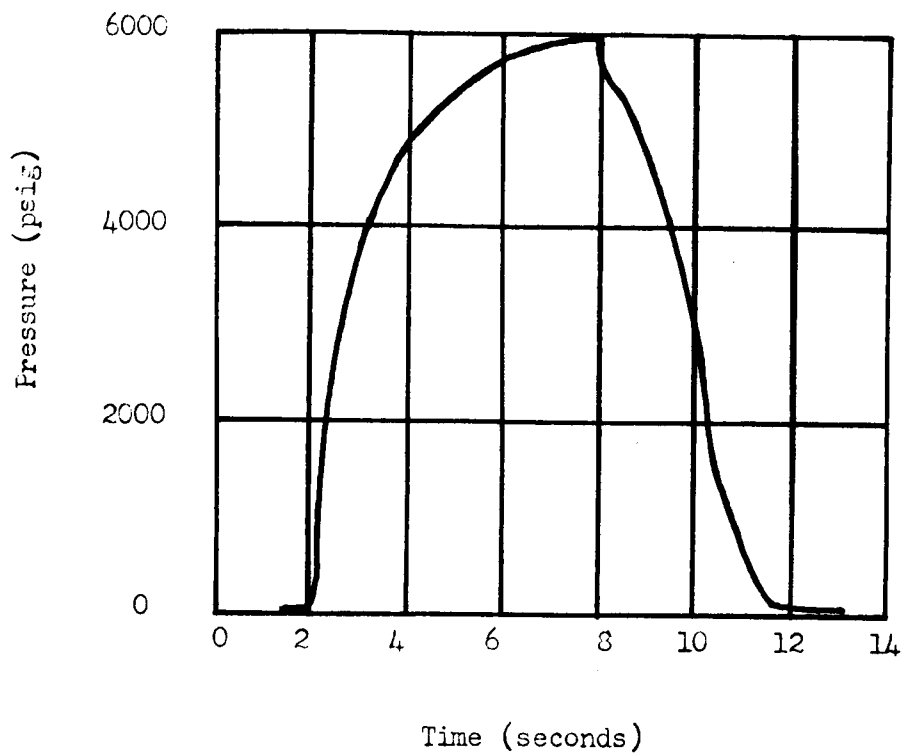


Figure 5-1. Typical Pressure Cycle Waveform

## SECTION VI

### BURST TEST

#### 6.1 TEST REQUIREMENTS

- 6.1.1 A burst test shall be performed on the test specimen to determine if abnormally high pressure will cause leakage or structural damage.
- 6.1.2 The test specimen shall be subjected to a water pressure of 10,000 psig for 5 minutes.
- 6.1.3 Any leakage or structural damage to the test specimen shall be noted.

#### 6.2 TEST PROCEDURE

- 6.2.1 The burst test setup was assembled as shown in figure 6-1, using the equipment listed in table 6-1. Figure 6-2 shows the test specimen mounted in the burst chamber. It was ensured that all connections were tight, gauges were installed and were operating properly, and all valves were closed.
- 6.2.2 Hand valves 3 and 4 were opened.
- 6.2.3 The system was bled, using pressure from hand pump 5, until the system was free of air.
- 6.2.4 Hand valve 3 was closed.
- 6.2.5 Using hand pump 5, the water pressure was increased to 10,000 psig as indicated on laboratory gauge 2.
- 6.2.6 Hand valve 4 was closed.
- 6.2.7 The pressure was monitored for 5 minutes, checking test specimen 1 for any visible leakage or damage.
- 6.2.8 The pressure on hand pump 5 was released.
- 6.2.9 Hand valve 3 was opened to vent the system.

6.3            TEST RESULTS

6.3.1           No leakage or structural damage to the test specimen was noted, however the test specimen indicated 3,000 psi at zero pressure on termination of the test.

6.4            TEST DATA

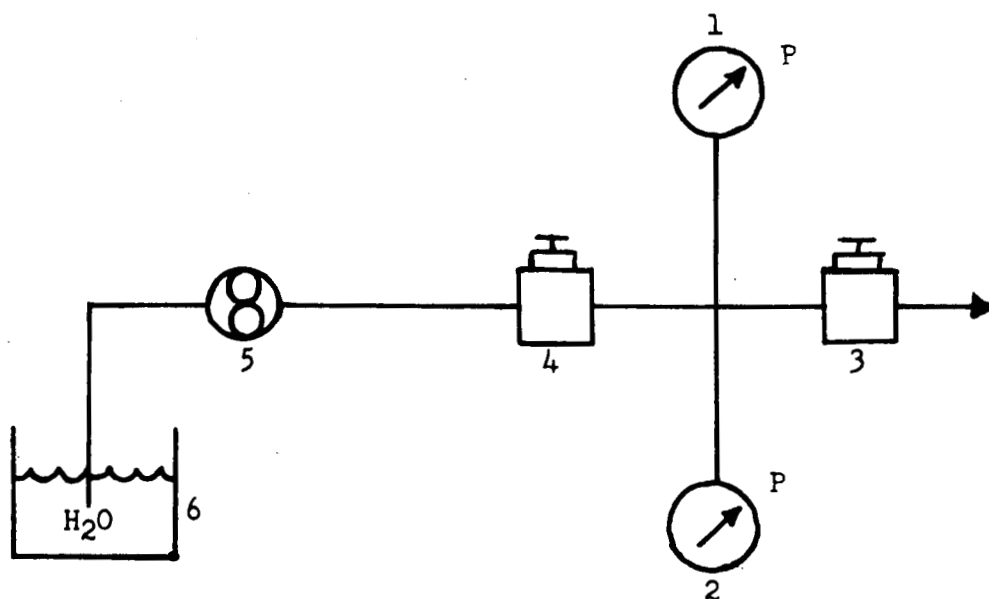
6.4.1           The burst test data is presented in table 6-2.

Table 6-1. Burst Test Equipment List

Item No.	Item	Manufacturer	Model/ Part No.	Serial No.	Remarks
1	Test Specimen	U. S. Gauge Co.	1838	75M09618 OPPG-5	0- to 6000-psig 1.5% FS accuracy
2	Laboratory Gauge	Ashcroft	NA	113-95- 139513	0- to 10,000 psig 0.5% FS accuracy Cal. date 10/1/66
3	Hand Valve	Robbins	SSKA- 250-4T	NA	1/4-inch
4	Hand Valve	Robbins	SSKA- 250-4T	NA	1/4-inch
5	Hand Pump	Pressure Products	NA	K-750	
6	Water Reservoir	NA	NA	NA	

Table 6-2. Burst Test Data

Pressure	10,000 psig
Time	5 minutes
Leakage	zero



Note: All lines 1/4 inch.  
Refer to table 4-1 for item identification.

Figure 6-1. Burst Test Schematic

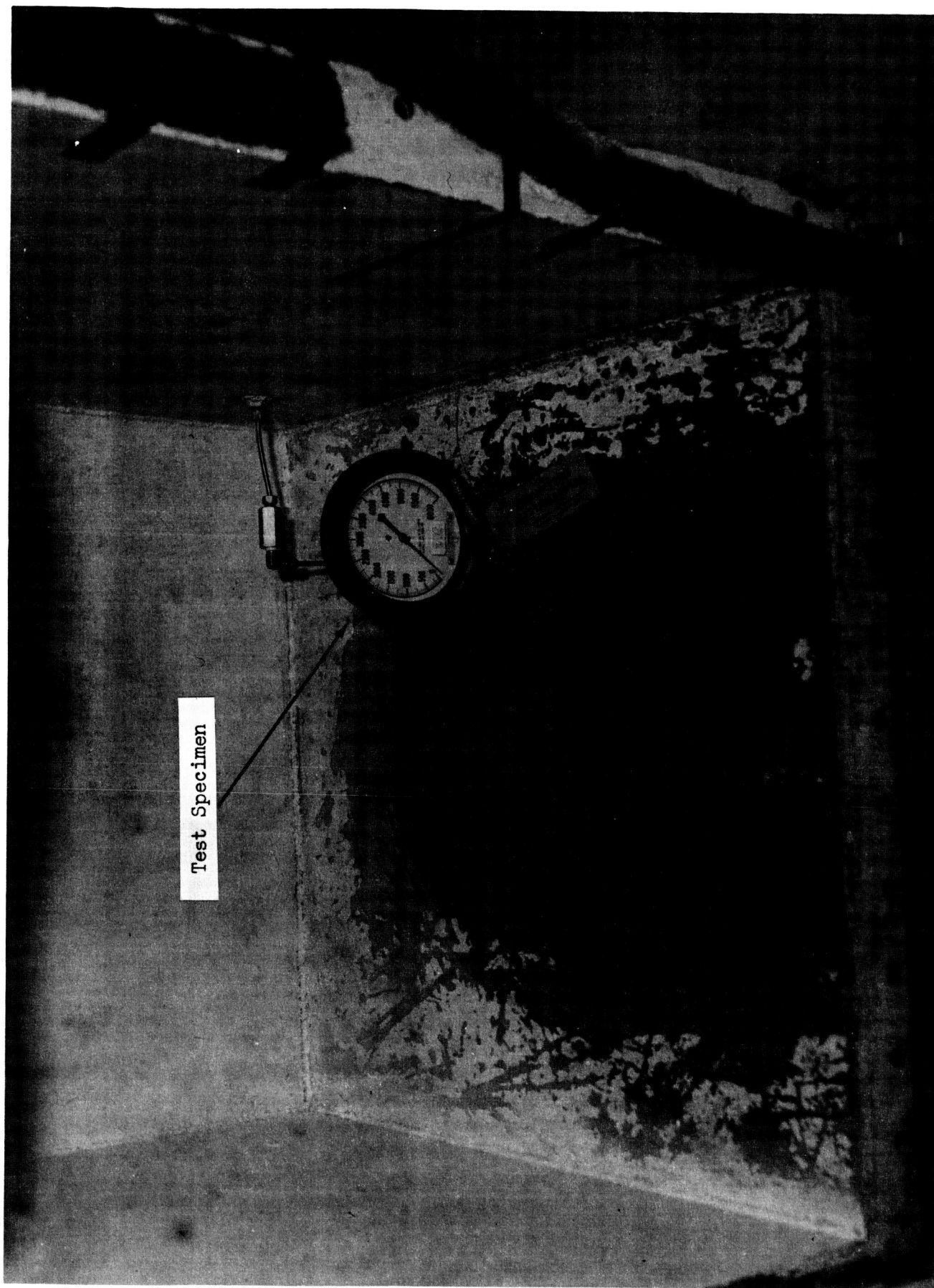


Figure 6-2. Burst Test Setup

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TEST REPORT

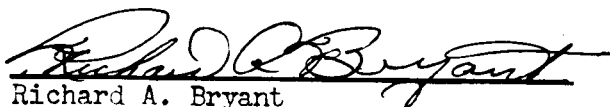
FOR

PRESSURE GAUGE, 6-INCH, 0- TO 6000-PSIG


U. S. Gauge Company Part Number 1838

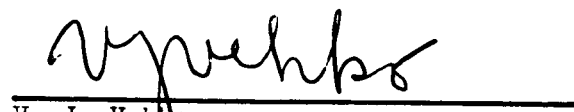
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